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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/072,456	02/07/2002	Pete Smith	068363.0136	1848

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EXAMINER

FRANK, RODNEY T

ART UNIT	PAPER NUMBER
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2856

DATE MAILED: 09/12/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/072,456

Applicant(s)

SMITH ET AL.

Examiner

Rodney T. Frank

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 4 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 17 July 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-46 is/are pending in the application.
- 4a) Of the above claim(s) 19-46 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_ 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Claim Rejections - 35 USC § 112*

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 7 and 10 are is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

3. Claim 7 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite in that it fails to point out what is included or excluded by the claim language. This claim is an omnibus type claim.

4. Claim 10 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 10 is dependent on claim 1. In claim 1, the first surface of the display device is coupled to the first surface of the base. However, in claim 10, you state that the first surface of the base defines apertures at which the display is *not* coupled. Either the device is coupled, or it is not coupled and further explanation is needed.

### *Claim Rejections - 35 USC § 103*

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-6, 8, 9, and 11-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Maloney et al. (U.S. Patent Number 6,231,428; hereinafter referred to as Maloney). Maloney discloses that the invention provides structure and method for achieving a uniformly polished or planarized substrate such as a semiconductor wafer including achieving substantially uniform polishing between the center of the semiconductor wafer and the edge of the wafer. In one aspect the invention provides a polishing apparatus including a housing, a carrier for mounting a substrate to be polished, a retaining ring circumscribing the carrier for retaining the substrate, a first coupling attaching the retaining ring to the carrier such that the retaining ring may move relative to the carrier, a second coupling attaching the carrier to the housing such that the carrier may move relative to the housing, the housing and the first coupling defining a first pressure chamber to exert a pressure force against the retaining ring, and the housing and the second coupling defining a second pressure chamber to exert a pressure force against the subcarrier. In one embodiment, the couplings are diaphragms. The invention also provides a retaining ring having a special edge profile that assists in smoothing and pre-compressing the polishing pad to increase polishing uniformity. A method for polishing and a semiconductor manufacture is also provided (Please see the abstract).

7. In reference to claims 1, 2, 3, 5, 11, 14, 15, and 16, a system for testing a display device is disclosed. The system comprises a base/vacuum box (105) with a first surface, the first surface having apertures (147), and a display device (113) comprising multiple layers with a semiconductor substrate and a transparent layer, wherein the first layer of the display device is coupled to the first surface of the base/vacuum box. The examiner points out in column 2 lines 25-65 that this device is used on displays with multiple substrates, in particular flat panel displays where one layer may be

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glass or another transparent substrate glass. Column 10 lines 62-67 point out the use of vacuum to hold the substrate in place, thus the use of a vacuum box.

8. In reference to claim 4, though it is not specifically disclosed, the use of silicon as the semiconductor substrate would be an obvious choice and design for one of ordinary skill in the art.

9. In reference to claims 6, though this limitation is not specifically disclosed, this would be a design choice for the display that would be well within the preview of one of ordinary skill in the art.

10. In reference to claims 8 and 9, though these limitations are not specifically disclosed, these are design choices for the base that would be well within the preview of one of ordinary skill in the art.

11. In reference to claim 12, it is disclosed that the box rotates (see column 6 lines 48-50).

12. In reference to claim 13, though this limitation is not specifically disclosed, this would be a design choice for the display that would be well within the preview of one of ordinary skill in the art.

13. In reference to claims 17 and 18, though these limitations are not specifically disclosed, these are design choices for the base that would be well within the preview of one of ordinary skill in the art. The base of the present invention needs three bases to cover movement in all directions. Since the Maloney patent utilizes a different movement system, it does not need multiple bases, and the multiple bases are not seen as an improvement as they impart the same motion as already achieved by Maloney.

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*Conclusion*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rodney T. Frank whose telephone number is (703) 306-5717. The examiner can normally be reached on M-F 9am -5:30p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hezron E. Williams can be reached on (703) 305-4705. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

RTF  
September 8, 2003

  
HEZRON WILLIAMS  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2800